Toyota Testimony

By Dave Hermance

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On

“Hybrid Cars: Increasing Fuel Efficiency and

Reducing Oil Dependence”

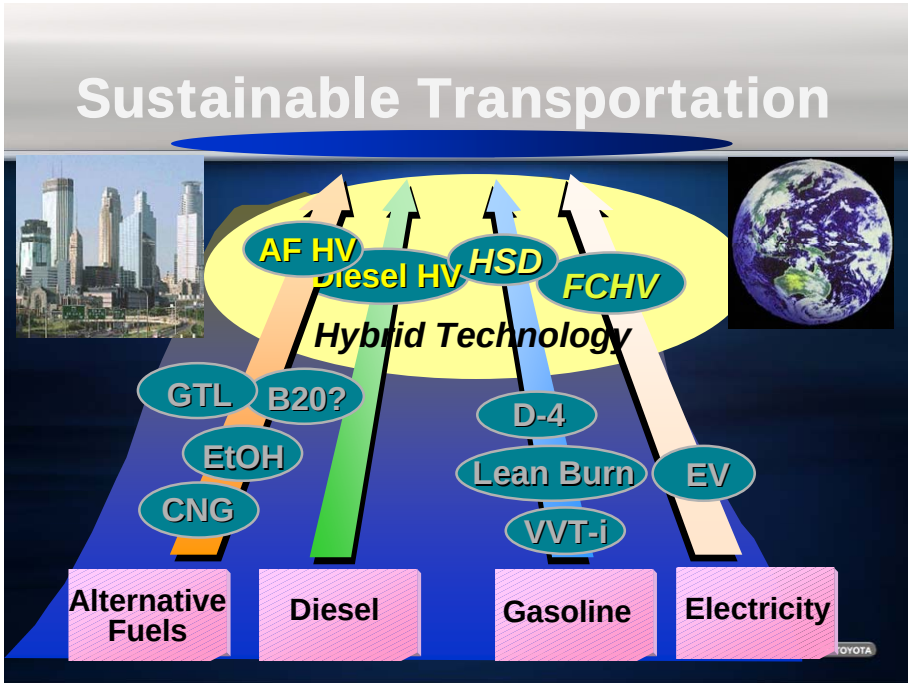
Before the

House Government Reform Subcommittee on Energy Resources

July 20, 2006

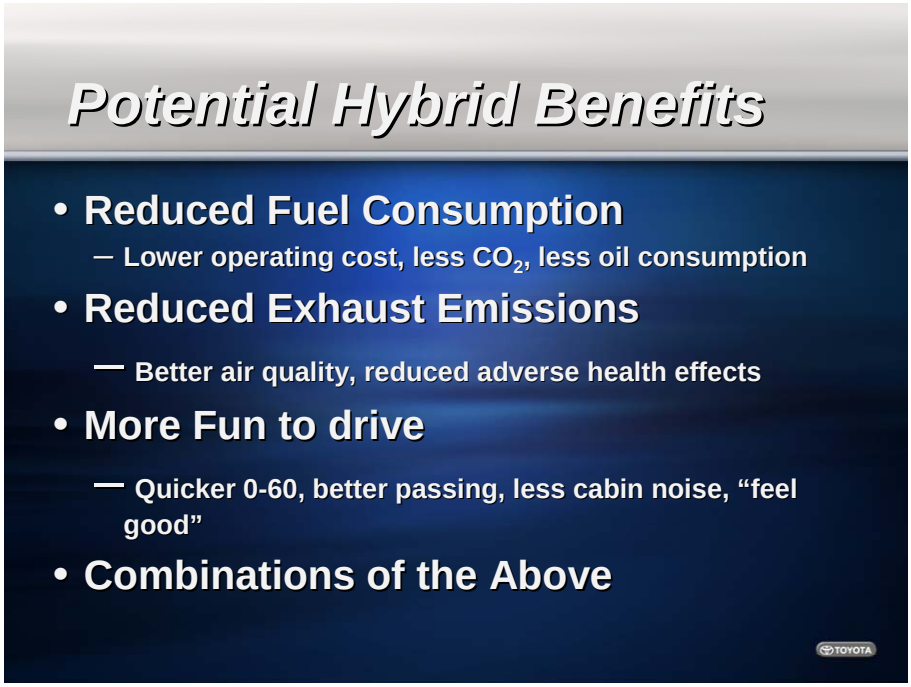
Mr. Chairman and members of the committee, my name is Dave Hermance and I am Executive Engineer for Advanced Technology Vehicles at Toyota's Technical Center in Los Angeles. I want to thank you for inviting Toyota to participate in this hearing and to provide our perspective on hybrid vehicles.

Toyota believes that there is no single fuel or powertrain technology that can solve all of society's transportation needs. Simply put, there is no silver bullet. This is why Toyota is pursuing multiple fuel and technology paths in our continuing quest to reduce the impact of the automobile on society.



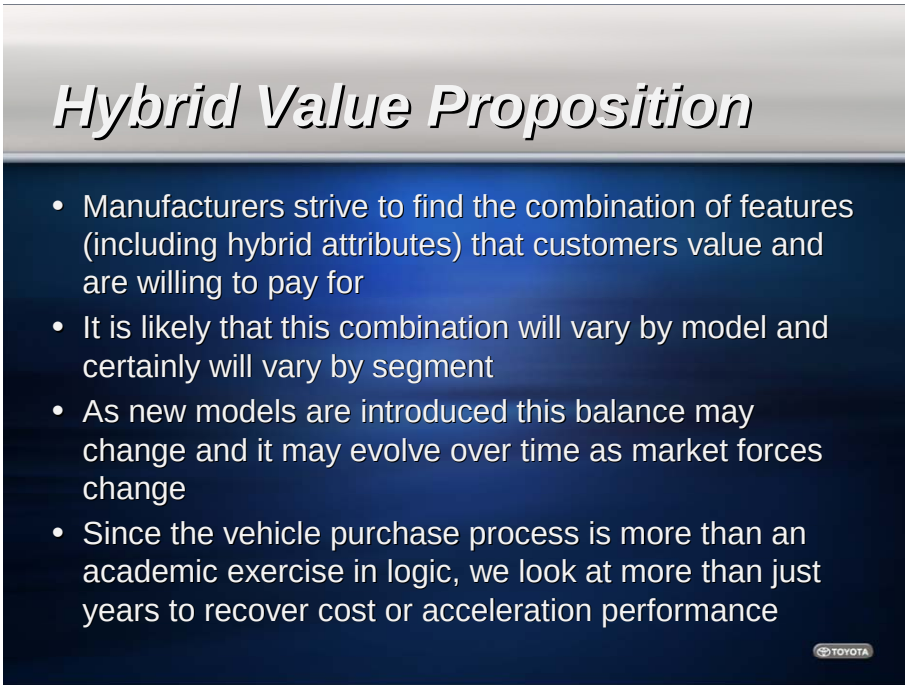
Through our research and development we have concluded that a key to improved efficiency for any type of fuel or propulsion technology is hybridization. In other words, hybrids are a core technology for Toyota.

Today by combining a secondary energy storage system with conventional powertrains, Toyota's Hybrid Synergy Drive system has the ability to reduce fuel consumption, reduce criteria pollutants and increase the "fun to drive" factor.



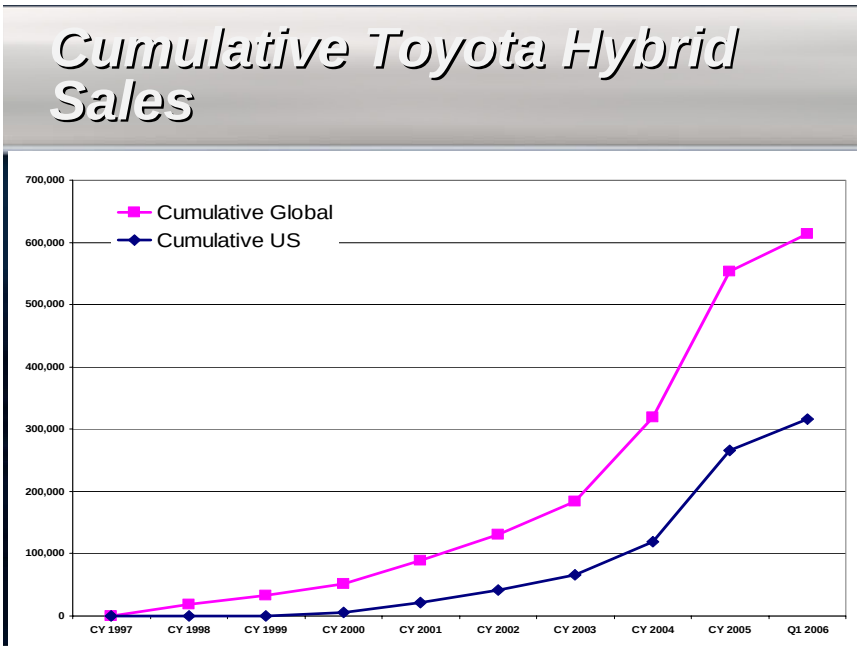
In the future, similar hybrid systems can be combined with new diesel technology, or alternative fuels technology or perhaps ultimately with hydrogen fuel cell technology. In all of these future cases, overall system efficiency is improved and increased efficiency is the price of admission to the future.

The vehicle purchase process is usually not an academic exercise in logic. Manufacturers strive to find a balance of attributes that a potential customer will value. This overall process is referred to as finding the right value proposition and this will likely vary by segment and perhaps over time.



For instance, the Prius matches best in class fuel economy (saving 350 gallons of fuel each year) with class average performance. The Lexus GS 450h provides better than V-8 performance while saving 160 gallons of fuel each year. And the new Camry Hybrid offers better performance than many mid-size V-6 products while saving 220 gallons of fuel each year. I should also note that all Toyota and Lexus hybrid vehicles are federally certified as Tier 2 – Bin 3 vehicles and in California as SULEVs. Importantly, hybrids are saving fuel today using existing infrastructure.

Since our introduction of Prius in 1997, Toyota's cumulative global hybrid sales have exceeded 600,000 units. Of this total, over 300,000 have been sold in the United States.



Currently, Toyota has five different hybrid models on sale in the United States, with one additional model, the Lexus LS 600h, scheduled for launch in 2007 (as a 2008 model). Clearly the US is an important market for Toyota's hybrid strategy.

Moving forward, we can easily see the results of Toyota's continuous improvement philosophy by examining the improvements in Prius over the initial six years after it was launched.

We have increased the combined label fuel economy of Prius by over 30 percent, improved 0-60 mph acceleration by 4.4 seconds, and steadily reduced the already low emissions. These enhancements are the result of increased efficiency in all components, steady improvements in battery technology and applied learning to control systems. Over the same time interval, the vehicle has grown to better suit the US market and sold in steadily higher volumes. We also managed to take 50% of the cost out of the system.

As a direct result of this approach, we can foresee a time when we offer a hybrid in every segment in which we compete. Over time, the cost/benefit of our hybrid

systems will be improved to the point that a hybrid becomes a normal “check the box” powertrain option, just like four, six and eight cylinders are today. Our goal is to double the number of hybrid models by early in the next decade, and it is reasonable to expect that doing so could bring Toyota’s global hybrid production to over 1 million units annually. We also plan to take an additional 50% of the cost out of the system.

Thank you, Mr. Chairman. I would be happy to answer any questions you might have.